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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Amended) A method for reading a data segment recorded on a track on a data storage disc in a disc drive, the disc comprising a track circumferentially divided into a plurality of sequentially arranged data sectors accessible by a read/write head and storing the data segment, the method comprising steps of:

(a) accessing, via the read/write head, the plurality of sequentially arranged data sectors and attempting to read data stored on each of the plurality of sequentially arranged data sectors as each sector is being accessed;

(b) in response to encountering at least two errors while attempting to read at least two of the plurality of sequentially arranged data sectors, generating an instruction list identifying the at least two sectors on which the errors were encountered; and

(c) executing a read error recovery procedure for reading data from the at least two sectors on which the errors were encountered, wherein the read error recovery procedure accesses and attempts to read data from the at least two sectors identified on the instruction list.

2. (Previously Amended) A method as defined in claim 1, wherein the executing step (c) comprises steps of:

(c)(i) accessing a recovery target sector and reading data stored on the recovery target sector via the read/write head, the recovery target sector being the sector on which an error was first encountered during performance of the accessing step (a); and

(c)(ii) accessing one or more remaining sectors on which an error was encountered during performance of the accessing step (a).

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3. (Previously Amended) A method as defined in claim 2, wherein the disc drive further includes a data buffer having buffer sectors therein and a formatter operatively connected to the data buffer and the read/write head, the formatter being operable for regulating a transfer of data between data sectors on the track and buffer sectors in the buffer, wherein the instruction list is operable for instructing the formatter to allow the transfer of data between the buffer sectors and the at least two sectors on which the errors were encountered during performance of the accessing step (a) and for instructing the formatter not to transfer data between buffer sectors and the sectors on the disc storing the data segment on the track on which an error was not encountered during performance of the accessing step (a).

4. (Original) A method as defined in claim 3, wherein the disc drive further includes a skip mask operably connected to the formatter and operable to hold the instruction list.

5. (Original) A method as defined in claim 4, wherein the disc drive further includes a microprocessor and a vector buffer manager list which indicates an order in which the buffer may be accessed.

6. (Previously Amended) A method as defined in claim 5 further comprising a step of:

(d) updating the vector buffer manager list to direct the transfer of data from the at least two sectors on which the errors were encountered to corresponding sectors in the buffer during the read error recovery procedure.

7. (Previously Amended) A method as defined in claim 2, wherein the executing step (c) further comprises a step of:

(c)(iii) updating the instruction list to identify any sectors on which an error is encountered during the read error recovery procedure.

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8. (Previously Amended) A method as defined in claim 7 further comprising a step of:

(d) if an error is encountered during the read error recovery procedure, repeating the executing step (c).

9. (Previously Amended) A method as defined in claim 3, wherein the disc drive further includes a data throttling mechanism operably connected between the buffer and a host computer, the data throttling mechanism being operable to regulate a transfer of data between the buffer and the host computer and having a data throttling register, the method further comprising a step of:

(d) incrementing the data throttling register by one count after each sector is accessed during the read error recovery procedure if an error is not encountered while the at least two sectors are being accessed.

10. (Previously Amended) A method as defined in claim 9 further comprising a step of:

(e) enabling the transfer of data stored in the buffer to the host computer if the count of the data throttling register is equal to a non-zero number.

11. (Previously Amended) A method as defined in claim 9 further comprising a step of:

(e) pausing the transfer of data from the buffer to the host computer if the count of the data throttling register is equal to zero.

12. (Previously Amended) A method as defined in claim 1, wherein the accessing step (a) is terminated when the read/write head accesses all sectors storing all data of the data segment.

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13. (Previously Amended) A method as defined in claim 1, wherein the accessing step (a) is terminated after the read/write head accesses each of the plurality of sequentially arranged sectors during a single revolution of the track.

14. (Original) A method as defined in claim 1, wherein the data segment includes audio/visual data.

15. (Previously Amended) In a disc drive having a data storage disc radially divided into one or more tracks, wherein each track is circumferentially divided into a plurality of sequentially arranged data sectors accessible by a read/write head, a method for reading a data segment stored on the disc, the method comprising steps of:

(a) performing an initial read of the data segment during a first access of the track wherein a plurality of errors are encountered while accessing at least two sectors on which the data segment is stored; and

(b) during a second access of the track subsequent to the first access, re-accessing each of the at least two sectors on which the plurality of errors were encountered in order to attempt a subsequent read of the data recorded thereon, wherein each of the at least two sectors are re-accessed during a single revolution of the disc.

16. (Previously Amended) A method as defined in claim 15 wherein the performing step (a) comprises:

(a)(i) accessing via the read/write head the plurality of sequentially arranged data sectors and attempting to read data stored on each of the plurality of sequentially arranged data sectors as each sector is being accessed; and

(a)(ii) in response to encountering the plurality of errors, generating an instruction list identifying the at least two sectors on which the errors were encountered.

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17. (Previously Amended) A method as defined in claim 16, wherein the re-accessing step (b) comprises:

(b)(i) accessing a recovery target sector and reading data stored on the recovery target sector via the read/write head, the recovery target sector being identified by the instruction list as the sector on which an error was first encountered during the first access by the read/write head; and

(b)(ii) during the second access of the track, accessing one or more remaining sectors on which an error was encountered during the first access by the read/write head, the one or more remaining sectors being identified by the instruction list.

18. (Currently Amended) A method as defined in claim 17, wherein the disc drive further includes a data buffer having buffer sectors therein and a formatter operatively connected to the data buffer and the read/write head, the formatter being operable for regulating a transfer of data between data sectors on the track and buffer sectors in the buffer, wherein the instruction list is operable for instructing the formatter to allow the transfer of data between the buffer sectors and the at least two sectors on which the errors were encountered during the first and the second access of the track and for instructing the formatter not to transfer data between buffer sectors and the sectors on the disc storing the data segment on the track on which an error was not encountered during the first and the second access of the track.

19. (Original) A method as defined in claim 18, wherein the disc drive further includes a skip mask operably connected to the formatter and operable to hold the instruction list, a microprocessor and a vector buffer manager list which indicates the order in which the buffer may be accessed.

20. (Previously Amended) A method as defined in claim 15 further comprising a step of:

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(c) if one or more errors are encountered during the subsequent read, repeating the performing step (b) until data from each of the at least two sectors on which an error was encountered during the performing step (a) is properly read from the disc.

21. (Original) A system for re-reading data sectors of a data segment recorded on a track on a data storage disc, the system comprising:

a formatter regulating a transfer of data between data sectors on the track accessed by a transducer and buffer sectors in a buffer; and

control means for identifying each sector of the data segment to be read by the transducer, the control means identifying the sectors on which an error was encountered during a previous access of the track.

22. (Original) A system as defined in claim 21, wherein the control means comprises:

a skip mask operably connected to the formatter and operable to hold an instruction list, the instruction list being operable for instructing the formatter to allow the transfer of data between the buffer sectors and the sectors on the disc storing the data segment on which an error is encountered during the first and the subsequent access of the track and for instructing the formatter not to transfer data between buffer sectors and the sectors on the disc storing the data segment on the track on which an error is not encountered during the first and the subsequent access of the track.

23. (Original) A system as defined in claim 22 further comprising:  
a vector buffer manager list indicating an order in which the buffer may be accessed.

24. (Original) A system as defined in claim 21 further comprising:

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a data throttling mechanism operably connected between the buffer and a host computer, the data throttling mechanism being operable to regulate a transfer of data between the buffer and the host computer.

25. (Original) A system as defined in claim 21, wherein the data segment includes audio/visual data.

26. (Currently Amended) A disc drive having a data storage disc, an actuator for positioning a transducer over the data storage disc and a disc controller for communicating with a host computer, controlling position of the actuator and controlling access to sequentially arranged data sectors on tracks on the data storage disc, the disc drive comprising:

a buffer having sequentially arranged buffer sectors;

a read/write channel receiving data retrieved from the disc by the transducer;

an interface between the read/write channel and the buffer, the interface transmitting data read through the read/write channel to the buffer sectors of the buffer;

a formatter between the interface and the read/write channel for timing when data is transferred between the interface and the read/write channel;

a buffer manager building and updating a vector buffer manager list which indicates an order in which the buffer may be accessed; and

a skip mask mechanism operably connected to the formatter providing an instruction list directing the formatter whether to enable a passage of data between the interface and the read/write channel for each sequentially accessed sector on a data segment being read pursuant to a read command from the host computer; and

a data throttling mechanism operably connected between the buffer and the host computer, the data throttling mechanism being operable to regulate a transfer of data between the buffer and the host computer.

27. (Canceled)

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28. (Currently Amended) A disc drive as defined in claim ~~[[27]]~~ 26 wherein the data throttling mechanism comprises a data throttling register, the data throttling mechanism enabling the transfer of data from the buffer to the host computer if a count of the data throttling register is equal to a non-zero number.

29. (Currently Amended) A disc drive as defined in claim ~~[[27]]~~ 26 wherein the data throttling mechanism comprises a data throttling register, the data throttling mechanism pausing the transfer of data from the buffer to the host computer if the count of ~~[[a]]~~ the data throttling register is equal to zero.

30. (Original) A disc drive as defined in claim 26 wherein the skip mask mechanism controls a read error recovery procedure re-reading data stored on one or more disc sectors as the transducer accesses the data segment during a single revolution of the disc following an initial access of the data segment during which an error was encountered on the one or more disc sectors.



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31. (New) A method of reading data stored on a revolving media in a data storage device to provide requested data to a host, the method comprising:

(a) on a first read attempt performed in response to a request from the host to read at least three sequential sectors of data in at least one track on the media, reading all of the sectors of data requested by the host;

(b) storing the data read from each of the sequential sectors into a corresponding number of sequential buffers;

(c) identifying which, if any, buffers in the sequence of buffers contain data with at least one read error; and

(d) if at least one buffer in the sequence of buffers contains data with at least one read error, and if the first and the last buffers in the sequence of buffers both contain data with no read errors, then, on a subsequent read attempt performed in response to the request from the host, reading only those sectors of data corresponding to buffers that were identified as containing data with at least one read error.

32. (New) The method of claim 31, wherein the second read attempt performed in response to the request from the host is initiated within one complete revolution of the media after the first read attempt is completed.

33. (New) The method of claim 31, further comprising, on a subsequent read attempt performed in response to the request from the host, and for each buffer that was identified as containing data with at least one read error on the previous read attempt, storing the read data for the current read attempt into the corresponding buffer.

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34. (New) The method of claim 31, further comprising:  
on each subsequent read attempt performed in response to the request from the host,  
reading only those sectors of data corresponding to buffers that were identified as containing data  
with at least one read error on the previous read attempt; and  
storing the data that is read from each of the sectors on the current read attempt into their  
corresponding sequential buffers;  
identifying which, if any, buffers in the sequence of buffers contain data with at least one  
read error.

35. (New) The method of claim 34, wherein subsequent read attempts are made until  
no buffers in the sequence of buffers are identified as containing data with read errors.

36. (New) The method of claim 31, wherein the host's access to the data stored in the  
sequence of buffers is restricted by making available to the host only the data stored in those  
buffers in the sequence of buffers that are between the first buffer in the sequence and the lowest  
number buffer in the sequence of buffers that has been identified as containing data with at least  
one read error for the most recent read attempt.